

REMARKS**I. Status of the Claims**

Claims 1-12 were pending in the application prior to this submission. Claims 1-4 and 7-12 have been rejected under 35 U.S.C. § 102(e) as being anticipated by U.S. Pre-Grant Publication 2003/0071906 to Matsumoto (hereafter, "Matsumoto"). Claims 5 and 6 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over Matsumoto in view of U.S. Pre-Grant Publication 2002/0080247 to Takahashi et al. (hereafter, "Takahashi").

No claims have been amended in this submission. No new matter has been introduced, and thus, entry and consideration of this Amendment are respectfully requested.

II. Response to 35 U.S.C. § 102:

Claims 1-4 and 7-12 stand rejected under 35 U.S.C. § 102(e) as being anticipated by Matsumoto. More specifically, the Examiner asserts that the Matsumoto reference anticipates each and every limitation of claims 1-4 and 7-12.

Matsumoto is directed to an image sensing apparatus capable of operating in at least a single shot mode and a sequential mode (abstract). Matsumoto discloses various aspects of this device, for example, in FIG. 5. A circuit 114 controls the behavior of shutter 14 to limit the accumulation time for image light on CCD 15. The image information recorded by CCD 15 may then be processed by various components (e.g., 11, 13, 100-104 and 119) in the Matsumoto system in order to achieve a desired exposure amount. The Examiner further notes that the image sensing apparatus in Matsumoto may be configured in a variety of modes (e.g., paragraph 0111).

The present invention, in at least one embodiment, is directed to compensating a light amount loss caused by mechanical shutter operation (e.g., specification page 7, lines 6-20). A reason for controlling the compensation amount based on an image sensing mode or image sensing condition is that, for example, if the shutter speed is slowed down, for instance when compensating for a light loss amount when sensing an object moving at high speed, the captured image will be blurred (e.g., specification page 10 lines 3-19). Therefore, the present invention, as claimed, may compensate for the light loss amount due to the mechanical shutter operation in accordance with an image sensing mode (i.e., shutter speed priority mode, aperture priority mode, etc.) or image sensing condition, and thereby achieve compensation of light amount loss suitable for respective image sensing modes and image sensing conditions.

In view of the above, Applicants assert that Matsumoto does not anticipate each and every limitation of the claimed invention. The reference is deficient with respect to at least claim 1. The Examiner relies upon Matsumoto paragraph 0106 to anticipate “a compensation control unit that controls a compensation amount for each compensation unit in accordance with the at least one of the image sensing mode and the image sensing condition that is set by said setting unit.” This paragraph generally recites a controller (CPU 117) that is coupled to various components in the Matsumoto image capture apparatus, the controller further performing some calculations for obtaining values. However, this section of Matsumoto does not recite or imply controlling compensation units in accordance with at least one of an image sensing mode and an image sensing condition that is set by an image setting unit, as claimed in independent claim 1. Further, this argument is supported by the FIG. 7-12, wherein the disclosed process flowcharts make no consideration of the current image sensing apparatus mode selection when capturing an image. Image processing, for example, is disclosed more specifically in FIG. 11 of Matsumoto.

Further, Matsumoto does not recite or imply a compensation amount based on an image sensing mode or image sensing condition. Matsumoto is directed to compensating the level difference (gap) between the signals output via channel CH1 from the right part of image sensing element 15c and the signals output via channel CH2 from the left part of image sensing element 15d (e.g., see paragraph 0179 to 0181 and Fig. 5), not compensating light amount loss caused by mechanical shutter operation as claimed in the present invention. Matsumoto may disclose different compensation methods, namely, gain adjustment, offset adjustment, and gain and offset adjustment (e.g., paragraph 0104 and 0105), however, the Matsumoto apparatus does not control compensation amount based on an image sensing mode or image sensing condition.

Therefore, Applicants respectfully contend that at least independent claim 1 is clearly distinguishable from Matsumoto. Claim 9 is similar to claim 1 but directed instead to a method, and is also believed to be distinguishable. Claims 2-4, 7, 8 and 10-12 depend from claims 1 and 9, and as a result, are likewise distinguishable based on the previous arguments.

III. Response to 35 U.S.C. § 103 Rejection

Claims 5 and 6 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Matsumoto in view of Takahashi. More specifically, the Examiner asserts that the limitations of claims 5 and 6 are obvious in view of the combined teachings of Matsumoto and Takahashi.

Takahashi (now issued as U.S. Patent 6,630,960) is directed to an image sensing system for a video camera (e.g., paragraph 0002). This system optimizes exposure control in a video camera regardless of situation or condition (e.g., paragraph 0010). The amount of light admitted to the camera may be regulated by an iris (e.g., paragraph 0052). The control of the iris and other image processing parameters including shutter speed (e.g., accumulation time) and gain may be controlled in view of a situation or mode (e.g., paragraphs 0065-0086).

Initially, claims 5 and 6 depend from claim 1, and therefore, are distinguishable for the same reasons previously set forth above with regard to the Matsumoto reference. Further, the image pickup device of Takahashi also does not include a mechanical shutter (e.g., light-shielding unit of the present invention), and therefore, a plurality of compensation units for compensating a light amount loss caused by mechanical shutter operation are not required. As a result, Takahashi does not remedy the deficiencies noted above with respect to the Matsumoto reference. The combination of Matsumoto and Takahashi neither recite or imply a plurality of compensation units (e.g., gain control unit or image sensing element control unit) and the compensation control unit. In addition, Applicants note that while it may be common that a video camera has a function of sensing a still image (page 1, lines 22-25), the present invention is directed to solving a problem caused by an operation of a shutter unit which is provided for the reason described, for example, on page 5, line 14 to page 7, line 5 of the specification.

In view of the above, Applicants respectfully contend that Matsumoto and Takahashi, taken alone or in combination, fail to anticipate or make obvious the claimed invention, and request that the 35 U.S.C. § 103(a) rejection to claims 5 and 6 now be withdrawn.

Amendment response to 02/06/07, Office Action**CONCLUSION**

Based on the foregoing remarks, Applicants respectfully request reconsideration, withdrawal of the rejection of claims and allowance of this application.

AUTHORIZATION

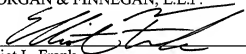
The Commissioner is hereby authorized to charge any additional fees which may be required for consideration of this Amendment to Deposit Account No. 13-4500, Order No. 1232-5217. A DUPLICATE OF THIS DOCUMENT IS ATTACHED.

In the event that an extension of time is required, or which may be required in addition to that requested in a petition for an extension of time, the Commissioner is requested to grant a petition for that extension of time which is required to make this response timely and is hereby authorized to charge any fee for such an extension of time or credit any overpayment for an extension of time to Deposit Account No 13-4500, Order No. 1232-5217. A DUPLICATE OF THIS DOCUMENT IS ATTACHED.

Respectfully submitted,
MORGAN & FINNEGAN, L.L.P.

Dated: April 25, 2007

By: _____


Elliot L. Frank
Registration No. 56,641

Correspondence Address:

Address Associated With Customer Number:
27123

(202) 857-7887 Telephone

(202) 857-7929 Facsimile